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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,473	10/01/2003	Allan McLane	718395.52	2472
27128	7590	10/04/2005	EXAMINER	
BLACKWELL SANDERS PEPER MARTIN LLP			FOX, JOHN C	
720 OLIVE STREET			ART UNIT	
SUITE 2400			PAPER NUMBER	
ST. LOUIS, MO 63101			3753	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

T2Ln

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/605,473	MCLANE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John Fox	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 and 46-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-26, 28-44 and 46-57 is/are rejected.
- 7) ☒ Claim(s) 18 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The claims are objected to for various grammatical and formal errors. Claim 10 is redundant. The conduit portions recited in claim 12 appear to conflict with the conduit added to claim 1. There is no antecedent basis for "the second conduit" in claim 13, or for "the said first outlet port" and "the said second outlet port" in any of the method claims. In claim 15, "has an axis generally is parallel" is unclear. In claim 18, "a second pie shaped fluid passage" is unclear in that no first pie shaped passage is recited. Claim 23 recites that the first internal fluid passage includes conduit portions that extend from itself to the surface, which is circular and incorrect.

Perhaps applicant could do a better job if a reasonable number of claims was presented.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 6-7, 10-13, 40, 43-44, 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Sullivan.

Sullivan shows a multiway valve with inlet 11, outlets 12, 13, 20, a T shaped flow path at 18, 19, an axially extending flow path 21 and another flow path 22. The human operator can be read as a motor.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Fortain. Sullivan shows the claimed device except for an outlet aligned with the axis of rotation. Fortain shows a drain 13 which points down. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have

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made the drain 20 of Sullivan to point down in such a manner to facilitate draining of the system.

Claims 4-5, 22-23, 25-26, 41-42, 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Flider.

Sullivan shows the claimed device except for biasing. Flider shows a biased valve for establishing a default position. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a biasing spring in the valve of Sullivan to similarly establish a default position.

Claims 9 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater.

Sullivan shows the claimed device except for the actuator. Drinkwater teaches an electronic valve actuator for a water application and includes reduction gearing multiple sensors and a user interface, which is read as including a processor. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the actuator of Drinkwater to actuate the Sullivan valve to allow remote actuation.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and further in view of Erhardt.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a stepper motor as taught by Erhardt to actuate the valve of Sullivan, as modified.

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Claims 1 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dickson.

Dickson shows a multiway valve with a first passage arrangement in Figure 3 and a second passage arrangement in Figure 2 and an axial passageway 110 connecting them. The lower part of 110 is read as a second axial passageway. In the alternative, the smaller opening adjacent ball 74 is read as a second axial passageway. The threads at 112 are read as a groove.

Claims 19-20 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Ford.

Sullivan shows the claimed device except for the gap and seals, which Ford shows. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a gap and seals to collect any leakage in the valve of Sullivan.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Ford and further in view of Koch et al.

Sullivan, as modified above, teaches the claimed device except for the position of the seals. Koch et al show the seals reversed, that is carried by the stator rather than the rotor. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a seal configuration in the valve of Sullivan, as modified, in that it is a mere reversal of parts.

Claims 24, 28 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Flider as applied above and further in view of Ford.

Sullivan, as modified, shows the claimed device except for the gap and seals, which is shown by Ford. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a gap and seals to collect any leakage in the valve of Sullivan.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and further in view of Roberts et al.

Sullivan, as modified, shows the claimed device except for a temperature sensor. Roberts et al show a water system with a thermostat 42, which is read as including a temperature sensor, to prevent freezing. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a thermostat in the system of Sullivan, as modified, to similarly prevent freezing.

Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and further in view Wagner.

Sullivan, as modified, shows the claimed device except for an electric pump, which is taught by Wagner. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a pump in the system of Sullivan, as modified, to be able to use a reservoir as taught by Wagner.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and further in view of Ripka et al.

Ripka et al teach an open loop heating system where domestic hot water is connected to a radiator. It would have been obvious for one of ordinary skill in the art at

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the time the invention was made to have used the Sullivan system, as modified, for heating as by using a radiator.

Claims 35, 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and further in view of Flider.

Sullivan, as modified, shows the claimed device except for biasing. Flider shows a biased valve for establishing a default position. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a biasing spring in the valve of Sullivan to similarly establish a default position.

Claims 36 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Flider, Drinkwater, and Wagner.

Sullivan shows the claimed device except for biasing. Flider shows a biased valve for establishing a default position. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a biasing spring in the valve of Sullivan to similarly establish a default position.

Sullivan shows the claimed device except for the actuator. Drinkwater teaches an electronic valve actuator for a water application and includes reduction gearing multiple sensors and a user interface, which is read as including a processor. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the actuator of Drinkwater to actuate the Sullivan valve to allow remote actuation.

Sullivan shows the claimed device except for an electric pump, which is taught by Wagner. It would have been obvious for one of ordinary skill in the art at the time the



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invention was made to have used such a pump in the system of Sullivan to be able to use a reservoir as taught by Wagner.

Claims 37 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Flider, Drinkwater and Wagner, as applied to claim 36 above, and further in view of Ripka et al.

Ripka et al teach an open loop heating system where domestic hot water is connected to a radiator. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the Sullivan system, as modified, for heating as by using a radiator.

Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and Flider as applied to claim 52 and further in view of Roberts et al.

Sullivan, as modified, shows the claimed device except for a temperature sensor. Roberts et al show a water system with a thermostat 42, which is read as including a temperature sensor, to prevent freezing. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a thermostat in the system of Sullivan, as modified, to similarly prevent freezing.

Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and Flider as applied to claim 52 and further in view of Wagner.

Sullivan, as modified, shows the claimed device except for an electric pump, which is taught by Wagner. It would have been obvious for one of ordinary skill in the art



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at the time the invention was made to have used such a pump in the system of Sullivan, as modified, to be able to use a reservoir as taught by Wagner.

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan in view of Drinkwater and Flider as applied to claim 52 and further in view of Ripka et al.

Ripka et al teach an open loop heating system where domestic hot water is connected to a radiator. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the Sullivan system, as modified, for heating as by using a radiator.

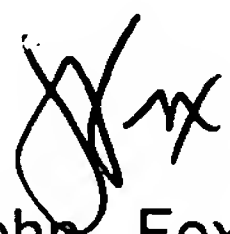
Claims 18 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Increased Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Fox  
Primary Examiner  
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